SAFETY DATA SHEET

According to OSHA Hazcom Standard 29 CFR 1910.1200

WATERPON GR7400

Date of issue: 2025-06-26 Revision date: 2025-06-26 Version: 1.1

1. IDENTIFICATION

A. Product name

- WATERPON GR7400

B. Recommended use and restriction on use

- General use : Surface treatment (varnish)
- Restriction on use : Restricted for other purposes

C. Manufacturer / Supplier / Distributor information

- Company name : NOROO Coil Coating
- Address : 54, Jangheung-ro 39beon-gil, Nam-gu, Pohang-si, Gyeonsangbuk-do, Republic of Korea
- Emergency telephone number : 054-278-0277

2. HAZARD IDENTIFICATION

A. GHS Classification

- Acute toxicity (oral) : Category5
- Acute toxicity (dermal) : Category5
- Serious eye damage/irritation : Category1
- Serious eye damage/irritation : Category2
- Serious eye damage/irritation : Category2A
- Reproductive toxicity : Category1A
- Reproductive toxicity : Category1B

B. GHS label elements

○ Hazard symbols



○ Signal words

- Not applicable

○ Hazard statements

- H303 May harmful if swallowed.
- H313 May be harmful if contact with skin.
- H318 Causes serious eye damage
- H319 Causes serious eye irritation
- H360 May damage fertility or the unborn child

○ Precautionary statements

1) Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P264 Wash hands thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

- P281

2) Response

- P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P302+P312 IF ON SKIN: Call a POISON CENTER/doctor if you feel unwell.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308+P313 If exposed or concerned: Get medical advice/attention.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P337+P313 If eye irritation persists: Get medical advice/attention.

3) Storage

- P405 Store locked up.

4) Disposal

- P501 Dispose of contents/container in accordance with local/regional/national/international regulation

C. Other hazards which do not result in classification

- Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Trade names and Synonyms	CAS No.	Content(%)
Water	Aqua; Dihydrogen oxide	7732-18-5	48
Neodecanoic acid, ethenyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-orioebiate(9Cl)	Neodecanoic acid, ethenyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-orioebiate(9Cl)	-	10
Diethylene glycol monobutyl ether	Butyldiglycol ; Butoxydiethylene glycol ; Butoxyethoxyethanol ; Diglycol monobutyl ether ; O-Butyl diethylene glycol ; Diethylene glycol b-Butyl ether ;	112-34-5	6
[3-(Methacryloxy)propyl]trimethoxysilane	2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester ; (g-Methacryloxypropyl)trimethoxysilane ; Methacryloxypropyltrimethoxysilane ; 3-Methacryloxypropyltrimethoxysilane ; 3-(Trimethoxysilyl)propyl methacrylate ; 3-Trimethoxysilylpropyl 2-methylprop-2-enoate ; Methacrylic acid, 3-(trimethoxysilyl)propyl ester ; Trimethoxy(3-methacryloxypropyl)silane ;	2530-85-0	3
1-Ethylpyrrolidin-2-one	2-Pyrrolidinone, 1-ethyl- ; N-Ethylpyrrolidinone ; 1-Ethyl-2-pyrrolidinone ; N-Ethylpyrrolidone ; 1-Ethylpyrrolidin-2-one ; 1-Ethyl 2-Pyrrolidinone ; 1-Ethyl-2-pyrrolidone ; 1-Ethylazacyclopentan-2-one ; N-Ethyl-a-pyrrolidinone ; N-Ethyl-g-butyrolactam ;	2687-91-4	3
Silicon dioxide	Silic anhydride ; Dioxosilane ; Cristobalite ; Quartz ; Silica gel	7631-86-9	6

4. FIRST AID MEASURES

A. Eye contact

- Do not rub your eyes.

- Immediately flush eyes with plenty of water for at least 15 minutes and call a doctor/physician.
- Get medical attention immediately.
- Go to the hospital immediately if symptoms(flare, irritate) occur.
- Remove contact lenses if worn.

B. Skin contact

- Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Wash contaminated clothing thoroughly before re-using.
- Get medical attention immediately.
- Remove contaminated clothing, shoes and isolate.
- Wear gloves when washing the patient, and please avoid contact with contaminated clothing.

C. Inhalation contact

- Take specific treatment if needed.
- When exposed to large amounts of steam and mist, move to fresh air.
- Get medical attention immediately.
- If breathing is stopped or irregular, give artificial respiration and supply oxygen.

D. Ingestion contact

- Please be advised by doctor whether induction of vomit is demanded or not.
- Rinse your mouth with water immediately.
- Get medical attention immediately.

E. Delayed and immediate effects and also chronic effects from short and long term exposure

- Not available

F. Notes to physician

- Notify medical personnel of contaminated situations and have them take appropriate protective measures.
- If exposed or concerned, get medical attention/advice.

5. FIREFIGHTING MEASURES

A. Suitable (Unsuitable) extinguishing media

- Avoid use of water jet for extinguishing
- Dry chemical, carbon dioxide, regular foam extinguishing agent, spray

B. Specific hazards arising from the chemical

- Causes serious eye damage
- Causes serious eye irritation
- May be harmful if contact with skin.
- May damage fertility or the unborn child
- May harmful if swallowed.

C. Special protective actions for firefighters

- Avoid inhalation of materials or combustion by-products.
- Cool containers with water until well after fire is out.
- Do not approach the tank surrounded by fire until it is extinguished.
- In case of conflagration, use automatic fire sprinkler. Major fire may require withdrawal, allowing the object itself to burn.
- Keep unauthorized personnel out.

6. ACCIDENTAL RELEASE MEASURES

A. Personal precautions, protective equipment and emergency procedures

- Do not touch spilled material. Stop leak if you can do it without risk.
- Handle the damaged containers or spilled material after wearing appropriate protective equipment
- Move container to safe area from the leak area.
- Must work against the wind, let the upwind people to evacuate.
- Remove all sources of ignition.

B. Environmental precautions

- Avoid dispersal of spilt material and runoff and contact with waterways, drains and sewers. If large spills, advise emergency services.
- If large amounts have been spilled, inform the relevant authorities.
- Prevent runoff and contact with waterways, drains or sewers.

C. Methods and materials for containment and cleaning up

- Appropriate container for disposal of spilled material collected.
- Dike for later disposal.
- Disposal of waste shall be in compliance with the Wastes Control Act
- Large spill : Stay upwind and keep out of low areas. Dike for later disposal.
- Notify the central and local government if the emission reach the standard threshold.

7. HANDLING AND STORAGE

A. Precautions for safe handling

- Avoid contact with incompatible materials.
- Avoid direct physical contact.
- Comply with all applicable laws and regulations for handling
- Dealing only with a well-ventilated place.
- Do not handle until all safety precautions have been read and understood.

B. Conditions for safe storage, including any incompatibilities

- Avoid direct sunlight.
- Check regularly for leaks.
- Do not apply any physical shock to container.
- Do not apply direct heat.
- Do not use damaged containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

A. Exposure limits

○ ACGIH TLV

- [Diethylene glycol monobutyl ether] : TWA, 10 pm (67.5 mg/m3), Inhalable fraction and vapor

○ OSHA PEL

- Not applicable

B. Engineering controls

- Business owner is recommended to maintain below recommended exposure limits for the working place with general exhaust of gas/vapour/mist/fume.

C. Individual protection measures, such as personal protective equipment

○ Respiratory protection

- Any air-purifying respirator with a full facepiece and an organic vapor canister.
- Any chemical cartridge respirator with a full facepiece and organic vaporcartridge(s).
- Any chemical cartridge respirator with organic vapor cartridge(s).
- Consider warning properties before use.
- For Unknown Concentration or Immediately Dangerous to Life or Health : Any supplied-air respirator with full facepiece and operated in a pressure-demand or other positive-pressure mode in combination with a separate escape supply. Any self-contained breathing apparatus with a full facepiece.
- Respiratory protection is ranked in order from minimum to maximum.
- Under conditions of frequent use or heavy exposure, Respiratory protection may be needed.

○ Eye protection

- Provide an emergency eye wash station and quick drench shower in the immediate work area.
- Wear primary eye protection such as splash resistant safety goggles with a secondary protection face shield.

○ Hand protection

- Wear appropriate chemical resistant glove.

○ Skin protection

- Wear appropriate chemical resistant protective clothing.

○ Others

- Not available

9. PHYSICAL AND CHEMICAL PROPERTIES

A. Appearance	
- Appearance	liquid
- Color	Blueish opaque liquid
B. Odor	No data
C. Odor threshold	No data
D. pH	9
E. Melting point/Freezing point	No data
F. Initial Boiling Point/Boiling Ranges	Not available
G. Flash point	Not available
H. Evaporation rate	No data
I. Flammability(solid, gas)	No data
J. Upper/Lower Flammability or explosive limits	No data
K. Vapour pressure	No data
L. Solubility	No data
M. Vapour density	No data
N. Specific gravity(Relative density)	1.01~1.04(25℃)
O. Partition coefficient of n-octanol/water	No data
P. Autoignition temperature	No data
Q. Decomposition temperature	No data
R. Viscosity	10.0~14.0(sec,25℃)
S. Molecular weight	No data

10. STABILITY AND REACTIVITY

A. Chemical Stability

- This material is stable under recommended storage and handling conditions.

B. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

C. Conditions to avoid

- Avoid : Accumulation of electrostatic charges, Heating, Flames and hot surfaces
- Avoid contact with incompatible materials and condition.

D. Incompatible materials

- Not available

E. Hazardous decomposition products

- May emit flammable vapour if involved in fire.

11. TOXICOLOGICAL INFORMATION

A. Information on the likely routes of exposure

○ Respiratory tracts

- Not available

○ Oral

- May harmful if swallowed.

○ Eye·Skin

- Causes serious eye damage
- Causes serious eye irritation

B. Delayed and immediate effects and also chronic effects from short and long term exposure

○ Acute toxicity

* Oral
  - Product (ATEmix) : >5000mg/kg
  - [Water] : LD50 > 90000 ㎎/㎏ Rat (LD50 > 90 ml/kg) (HSDB)
  - [Diethylene glycol monobutyl ether] : LD50 2410 ㎎/㎏ Rat (ECHA)
  - [[3-(Methacryloxy)propyl]trimethoxysilane] : LD50 >2000 mg/kg Rat (OECD 423, GLP) (ECHA)
  - [1-Ethylpyrrolidin-2-one] : LD50 1350 ㎎/㎏ Rat (Thomson)
* Dermal
  - Product (ATEmix) : >5000mg/kg
  - [Diethylene glycol monobutyl ether] : LD50 2764 ㎎/㎏ Rabbit (ECHA)
  - [[3-(Methacryloxy)propyl]trimethoxysilane] : LD50 > 2000 ㎎/㎏ Rat (OECD TG 402, GLP) (ECHA)
  - [1-Ethylpyrrolidin-2-one] : LD50 >2,000 mg/kg Rat (GLP, ECHA)
* Inhalation
  - Product (ATEmix) : >50.0mg/L, Vapour, 4hr
  - [Diethylene glycol monobutyl ether] : Aerosol Inhalation risk test > 29 ppm 2 hr No death Not classified (ECHA)
  - [[3-(Methacryloxy)propyl]trimethoxysilane] : Aerosol LC50 > 2.28 mg/L 4 hr Rat No death Not classified (OECD TG 403) (ECHA)
  - [1-Ethylpyrrolidin-2-one] : aerosol LC50 >5.1 mg/L/4hr (GLP, ECHA)

○ Skin corrosion/irritation

- Not available

○ Serious eye damage/irritation

- Causes serious eye damage
- Causes serious eye irritation

○ Respiratory sensitization

- Not available

○ Skin sensitization

- Not available

○ Carcinogenicity

* IARC
  - [Silicon dioxide] : Group 3
* OSHA
  - Not available
* ACGIH
  - Not available
* NTP
  - Not available
* EU CLP
  - Not available

○ Germ cell mutagenicity

- Not available

○ Reproductive toxicity

- May damage fertility or the unborn child

○ STOT-single exposure

- Not available

○ STOT-repeated exposure

- Not available

○ Aspiration hazard

- Not available

12. ECOLOGICAL INFORMATION

A. Ecotoxicity

○ Fish

- [Diethylene glycol monobutyl ether] : LC50 1300 ㎎/ℓ 96 hr Lepomis macrochirus (ECHA)
- [[3-(Methacryloxy)propyl]trimethoxysilane] : LC50 >100 mg/L 96h Danio rerio (EU Method C.1, GLP) (ECHA)
- [1-Ethylpyrrolidin-2-one] : LC50 464 ~ 999mg/L 96hr Danio rerio (ECHA)

○ Crustaceans

- [Diethylene glycol monobutyl ether] : EC50 > 100 mg/L 48hr Daphnia magna (ECHA)
- [[3-(Methacryloxy)propyl]trimethoxysilane] : EC50 >100 mg/L 48h Daphnia magna (EU Method C.2, GLP) (ECHA)
- [1-Ethylpyrrolidin-2-one] : EC50 > 104mg/L 48 hr Daphnia magna (ECHA)

○ Algae

- [Diethylene glycol monobutyl ether] : EC50 >100 96hr Desmodesmus subspicatus (ECHA)
- [[3-(Methacryloxy)propyl]trimethoxysilane] : EC50 > 100 mg/L, NOEC >= 100 mg/L 72hr Desmodesmus subspicatus (EU Method C.3, GLP) (ECHA)
- [1-Ethylpyrrolidin-2-one] : EC50 > 101 ㎎/ℓ 72 hr Desmodesmus subspicatus(ECHA)

B. Persistence and degradability

○ Persistence

- [Water] : log Kow -1.38 (HSDB)
- [Diethylene glycol monobutyl ether] : log Pow 1 (20 ℃, pH 7)(ECHA)
- [[3-(Methacryloxy)propyl]trimethoxysilane] : log Kow 2.1 (SIDS)

○ Degradability

- Not available

C. Bioaccumulative potential

○ Bioaccumulative potential

- [[3-(Methacryloxy)propyl]trimethoxysilane] : BCF 3.5 (nominal concentration 5 mg/L) and 34 (nominal concentration 0.5 mg/L) (OECD TG 305 C, GLP) (ECHA)
- [1-Ethylpyrrolidin-2-one] : BCF 3.162 (Estimate)

○ Biodegradation

- [Diethylene glycol monobutyl ether] : ca. 85 %(O2 consumption) 28 d, Readily biodegradable (ECHA)
- [[3-(Methacryloxy)propyl]trimethoxysilane] : Readily biodegradable, 69 % degradation (O2 consumption) 28d (OECD TG 301 F, GLP) (ECHA)

D. Mobility in soil

- Not available

E. Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

A. Disposal methods

- It shall be treated by incineration
- Oil water separation technology shall be applied as pre-waste treatment if it is applicable
- Stabilization and minimization treatment by incineration or similar method can be applied, if more than two kinds of designated wastes are in mixture state and it is impractical to separate them

B. Special precautions for disposal

- Anyone with business license number who generates industrial wastes shall treat the waste by him/herself or by entrusting to the legal entities who treat the wastes, recycle the wastes of others or install and operate the waste treatment facilities according to the Wastes Control Act

- Dispose of waste in accordance with all applicable laws and regulations.

14. TRANSPORT INFORMATION

A. UN No. (IMDG CODE/IATA DGR)

- Not applicable

B. Proper shipping name

- Not applicable

C. Hazard Class

- Not applicable

D. IMDG CODE/IATA DGR Packing group

- Not applicable

E. Marine pollutant

- Not applicable

F. Special precautions for user related to transport or transportation measures

- Air transport(IATA): Not subject to IATA regulations.

- Emergency Action Code

- Hazard No.(ADR)

- Local transport follows in accordance with Dangerous goods Safety Management Law.

- Package and transport follow in accordance with Department of Transportation (DOT) and other regulatory agency requirements.

- Tunnel Restriction Code

- EmS FIRE SCHEDULE : Not available

- EmS SPILLAGE SCHEDULE : Not available

15. REGULATORY INFORMATION

A. National and/or international regulatory information

○ POPs Management Law

- [Water] : Not applicable

- [Neodecanoic acid, ethenyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-orioebiate(9Cl)] : Not applicable

- [Diethylene glycol monobutyl ether] : Not applicable

- [[3-(Methacryloxy)propyl]trimethoxysilane] : Not applicable

- [1-Ethylpyrrolidin-2-one] : Not applicable

- [Silicon dioxide] : Not applicable

○ Information of EU Classification

* Classification

- [Diethylene glycol monobutyl ether] : Not applicable

○ U.S. Federal regulations

* OSHA PROCESS SAFETY (29CFR1910.119)

- Not applicable

* CERCLA Section 103 (40CFR302.4)

- Not applicable

* EPCRA Section 302 (40CFR355.30)

- Not applicable

* EPCRA Section 304 (40CFR355.40)

- Not applicable

* EPCRA Section 313 (40CFR372.65)

- Not applicable

○ Rotterdam Convention listed ingredients

- Not applicable

○ Stockholm Convention listed ingredients

- Not applicable

○ Montreal Protocol listed ingredients

- Not applicable

16. OTHER INFORMATION

A. Reference

- The information contained herein is believed to be accurate. It is provided independently of any sale of the product for purpose of hazard communication. It is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability or fitness for a particular purpose is made with respect to the product or the information contained herein.

- This Safety Data Sheet was compiled with data and information from the following sources: KOSHA, NITE, ESIS, NLM, SIDS, IPCS

B. Issue date

- 2025-06-26

C. Revision number and Last date revised

- 1 times, 2025-06-26

D. Other

- This SDS is prepared according to the Globally Harmonized System (GHS).